



FCC TEST REPORT

According to

FCC Rules and Regulations Part 15 Subpart C

Applicant	: NETGEAR, INC.
Address	: 4500 Great America Parkway, Santa Clara, CA 95054
Equipment	: ProSafe Wireless-N Access Point
Model No.	: WNAP210
FCC ID	: PY308400098
Trade Name	: NETGEAR

Laboratory Accreditation



Testing Laboratory
1332

- The test result refers exclusively to the test presented test model / sample.,
- Without written approval of **CerpPASS Technology Corp.** the test report shall not be reproduced except in full.
- The EUT is also considered as a kind of computer peripheral, because the connection to computer is necessary for typical use. It has been verified to comply with the requirements of FCC Part 15, Subpart B, Class B (DoC). The test report has been issued separately.



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CERTIFICATE OF COMPLIANCE

According to

FCC Rules and Regulations Part 15 Subpart C

Applicant : NETGEAR, INC.
Address : 4500 Great America Parkway, Santa Clara, CA
95054
Equipment : ProSafe Wireless-N Access Point
Model No. : WNAP210
FCC ID : PY308400098

I **HEREBY** CERTIFY THAT :

The measurements shown in this test report were made in accordance with the procedures given in **ANSI C63.4** The equipment was **passed** the test performed according to **FCC Rules and Regulations Part 15 Subpart C (2007)**.

The test was carried out on Jan. 09, 2009 at **CerpPASS Technology Corp.**

Signature


Anson Chou
EMC/RF B.U. Vice General Manager



1. Report of Measurements and Examinations

1.1 List of Measurements and Examinations

FCC Rule	Description of Test	Result
15.203	. Antenna Requirement	Pass
15.207	. Conducted Emission	Pass
15.209 15.247(d)	. Radiated Emission	Pass
15.247(a)(2)	. 6dB Bandwidth	Pass
15.247(b)	. Maximum Peak Output Power	Pass
15.247(d)	. 100kHz Bandwidth of Frequency Band Edges	Pass
15.247(e)	. Power Spectral Density	Pass
1.1307 1.1310 2.1091 2.1093	. RF Exposure Compliance	Pass



2. Test Configuration of Equipment under Test

2.1 Feature of Equipment under Test

Ethernet Connection	
Access Point Mode	On
Port Speed	10/100/1000 Mbps
Local Network (LAN)	
LAN IP	192.168.0.236
Subnet Mask	255.255.255.0
Gateway Address	192.168.0.1
DHCP Client	Disabled
Time Zone	GMT-08:00
Time Zone Adjusted for Daylight Saving Time	Disabled
Wireless	
Operating Mode	11b/g/Next (20/40 MHz)
Wireless Communication	Enabled
Wireless Network Name (SSID)	NETGEAR
Broadcast Network Name SSID	Enabled
Security	Disabled
Transmission Speed	Auto
Country/Region	United States (in North America; otherwise, varies by region)
Channel/Radio Frequency	6/2.43 GHz (until the region is selected)
Output Power	Full
Wireless Card Access List	All wireless stations allowed
Technical Specifications	
802.11Next Data Rates	7.2, 14.4, 21.7, 28.9, 43.3, 57.8, 65, 72.2, 87.7, 115.6, 130 & 144.4 Mbps (20Hz) 15, 30, 45, 60, 90, 120, 135, 150, 180, 240, 270 & 300Mbps (40Hz)
802.11b/g Data Rates	1, 2, 5.5, 11, 12, 18, 24, 36, 38, 54 & 108 Mbps (Auto-rate capable)
802.11b/g Next Operating Frequencies	2.412~2.462 GHz (US), 2.457~2.462 GHz (Spain), 2.412~2.484 GHz (Japan), 2.457~2.472 GHz (France), 2.412 ~ 2.472 GHz (Europe ETSI)
802.11b/g/ Next Encryption	40-bits (also called 64-bits), 128-bits WEP data encryption, TKIP (WPA-PSK) and AES (WPA2-PSK)
Network Management	Web-based configuration and status monitoring
Maximum Clients	Limited by the amount of wireless network traffic generated by each node; typically 15 to 20 nodes
Status LEDs	Power/Ethernet LAN/Wireless LAN
Power Adapter	MT12-Y120100-A1 T012LF1209
Environmental Specifications	Operating temperature: 0 to 50°C Operating humidity: 5-95%, non-condensing



2.2 Carrier Frequency of Channels

802.11b, 802.11g, 802.11n, HT20

Channel	Frequency(MHz)	Channel	Frequency(MHz)
01	2412	07	2442
02	2417	08	2447
03	2422	09	2452
04	2427	10	2457
05	2432	11	2462
06	2437	12	---

802.11n, HT40

Channel	Frequency(MHz)	Channel	Frequency(MHz)
---	---	07	2442
---	---	08	2447
03	2422	09	2452
04	2427	---	---
05	2432	---	---
06	2437	---	---



2.3 Test Mode and Test Software

- a. During testing, the interface cables and equipment positions were varied according to ANSI C63.4.
- b. The complete test system included remote workstation and EUT for EMI test. The remote workstation included Notebook and Prosaie Switch with POE.
- c. An executive program, "Ping.exe" under WIN XP, which transmits and receives data to the remote workstation through LAN(1000M) and Wireless.
- d. The following test mode and test software was performed for conduction and radiation test:
 - 802.11b/g/n HT20: CH01: 2412MHz, CH06: 2437MHz, CH11: 2462MHz
 - 802.11n HT40: CH03: 2422MHz, CH06: 2437MHz, CH09: 2452MHz
- e. The following test modes included two kinds of power adapter:

Test Mode	Modulation Type	Antenna Number	Adapter Model
Test Mode 1	802.11b+g	ANT R	MT12-Y120100-A1
Test Mode 2	802.11b+g	ANT L	
Test Mode 3	802.11n HT20	ANT R + L	
Test Mode 4	802.11n HT40	ANT R + L	
Test Mode 5	802.11b+g	ANT R	T012LF1209
Test Mode 6	802.11b+g	ANT L	
Test Mode 7	802.11n HT20	ANT R + L	
Test Mode 8	802.11n HT40	ANT R + L	
Test Mode 9	802.11b+g	ANT R	Power from POE
Test Mode 10	802.11b+g	ANT L	
Test Mode 11	802.11n HT20	ANT R + L	
Test Mode 12	802.11n HT40	ANT R + L	

For Conducted and Radiated emission test, Test Mode 1, 3, 4, 5, 7, 8, 9, 11, 12 would be chosen to do final test.

2.4 Description of Test System

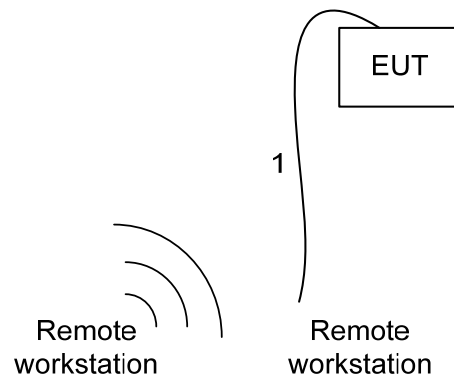
Device	Manufacturer	Model No.	Description
Notebook (Remote Workstation)	DELL	PP10L	Power Cable, Adapter Unshielding 1.8 m
Notebook (Remote Workstation)	TOSHIBA	PSA50T-05M 00C	Power Cable, Adapter Unshielding 1.8 m
Prosaie Switch with POE (Remote Workstation)	NETGEAR	FS108P	Power Cable, Adapter Unshielding 1.8 m

Use Cable:

Cable	Quantity	Description
RJ45	1	Unshielding, 5.0m



2.5 Connection Diagram of Test System



1. The RJ45 cable is connected from EUT to the remote workstation.
- * The EUT keeps to transmit and receive data via Notebook by Wireless.



2.6 General Information of Test

Test Site :	CerpPASS Technology Corp. 4F-2, No. 28, Lane 78, Xing-Ai Rd. Nei-hu, Taipei City 114 Taiwan R.O.C.
Test Site Location (OATS1-SD):	No.68-1, Shihbachongsi, shihding Township, Taipei City 223, Taiwan, R.O.C. Registration Number: 632249.
FCC Registration Number :	632249
IC Registration Number :	4934B-1
VCCI Registration Number :	T-182 for Telecommunication Test C-2188 for Conducted emission test R-1902 for Radiated emission test
Test Voltage:	AC 120V
Test in Compliance with:	ANSI C63.4-2003 FCC Part 15 Subpart C
Frequency Range Investigated:	Conducted: from 150kHz to 30MHz Radiation: from 30MHz to 24620MHz
Test Distance:	The test distance of radiated emission from antenna to EUT is 3 M.

2.7 Measurement Uncertainty

Measurement Item	Measurement Frequency	Polarization	Uncertainty
Conducted Emission	9 kHz ~ 30 MHz	LINE/NEUTRAL	2.71 dB
Radiated Emission	30 MHz ~ 25GHz	Vertical	4.11 dB
		Horizontal	4.10 dB
6 dB Bandwidth	---	---	7500 Hz
Maximum Peak Output Power	---	---	1.4 dB
100kHz Bandwidth of Frequency Band Edges	---	---	2.2 dB
Power Spectral Density	---	---	2.2 dB



3. Antenna Requirements

3.1 Standard Applicable

For intentional device, according to FCC 47 CFR Section 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.

And according to FCC 47 CFR Section 15.247 (b), if transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

3.2 Antenna Construction and Directional Gain

Antenna type: Printed Antenna

Antenna Gain: 3.1 dBi (Ant R), 3.6 dBi (Ant L), 3.8 dBi (Ant M, RX Only)



4. Test of Conducted Emission

4.1 Test Limit

Conducted Emissions were measured from 150 kHz to 30 MHz with a bandwidth of 9 KHz on the 120 VAC power and return leads of the EUT according to the methods defined in ANSI C63.4-2003 Section 3.1. The EUT was placed on a nonmetallic stand in a shielded room 0.8 meters above the ground plane as shown in section 2.2. The interface cables and equipment positioning were varied within limits of reasonable applications to determine the position produced maximum conducted emissions.

Frequency (MHz)	Quasi Peak (dB μ V)	Average (dB μ V)
0.15 – 0.5	66-56*	56-46*
0.5 – 5.0	56	46
5.0 – 30.0	60	50

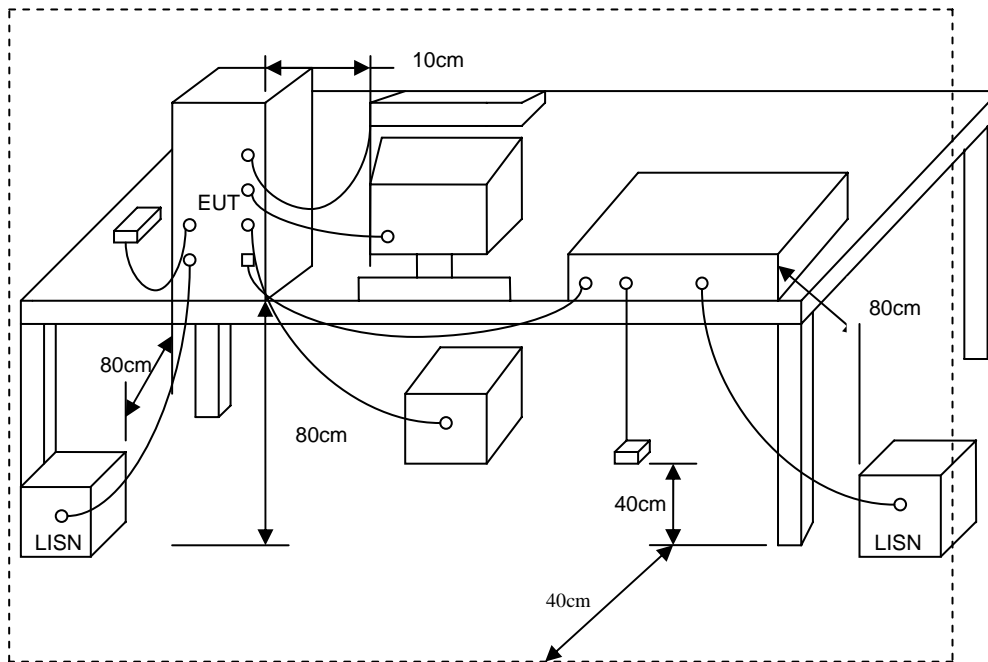
*Decreases with the logarithm of the frequency.

4.2 Test Procedures

- a. The EUT was placed 0.4 meter from the conducting wall of the shielding room was kept at least 80 centimeters from any other grounded conducting surface.
- b. Connect EUT to the power mains through a line impedance stabilization network (LISN).
- c. All the support units are connecting to the other LISN.
- d. The LISN provides 50 ohm coupling impedance for the measuring instrument.
- e. The FCC states that a 50 ohm, 50 micro-Henry LISN should be used.
- f. Both sides of AC line were checked for maximum conducted interference.
- g. The frequency range from 150 kHz to 30 MHz was searched.
- h. Set the test-receiver system to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.



4.3 Typical Test Setup



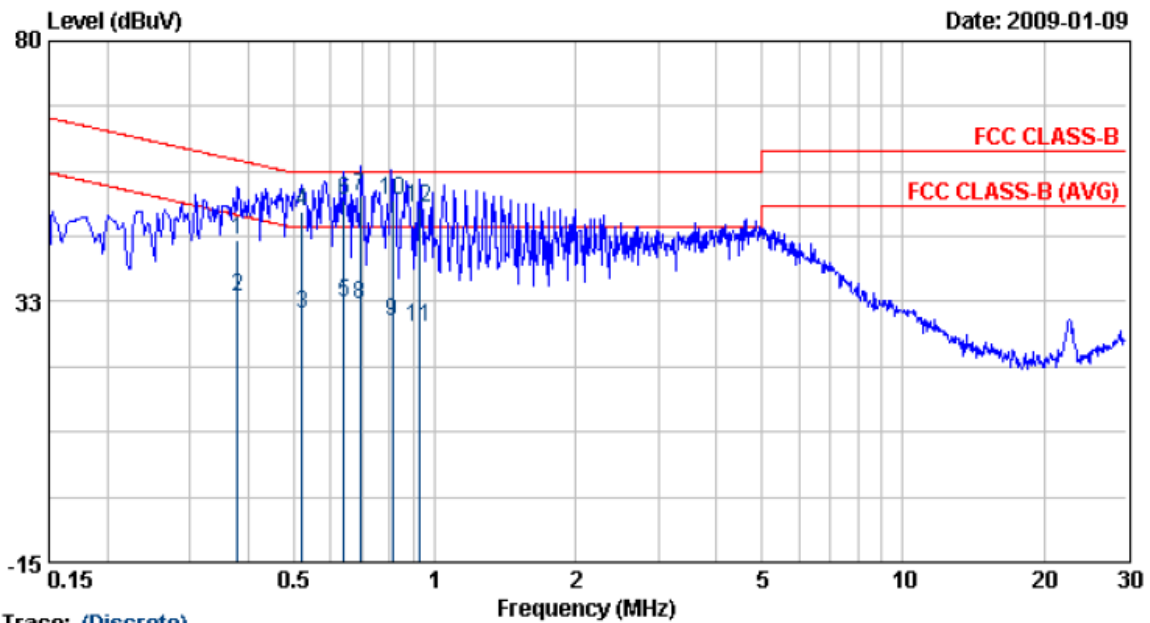
4.4 Measurement equipment

Instrument/Ancillary	Model No.	Manufacturer	Serial No.	Calibration Date	Valid Date.
EMI Receiver	R&S	ESCI	100443	2008/09/27	2009/09/26
LISN	MESS TEC	NNB-2/16Z	02/10191	2008/05/14	2009/05/13
LISN	ROLF HEINE	NNB-2/16Z	03/10058	2008/04/19	2009/04/18



4.5 Test Result and Data

Power	: AC 120V	Pol/Phase	: LINE
Test Mode 1	: 802.11g CH1	Temperature	: 23 °C
Memo	: Adapter: MT12-Y120100-A1	Humidity	: 51 %



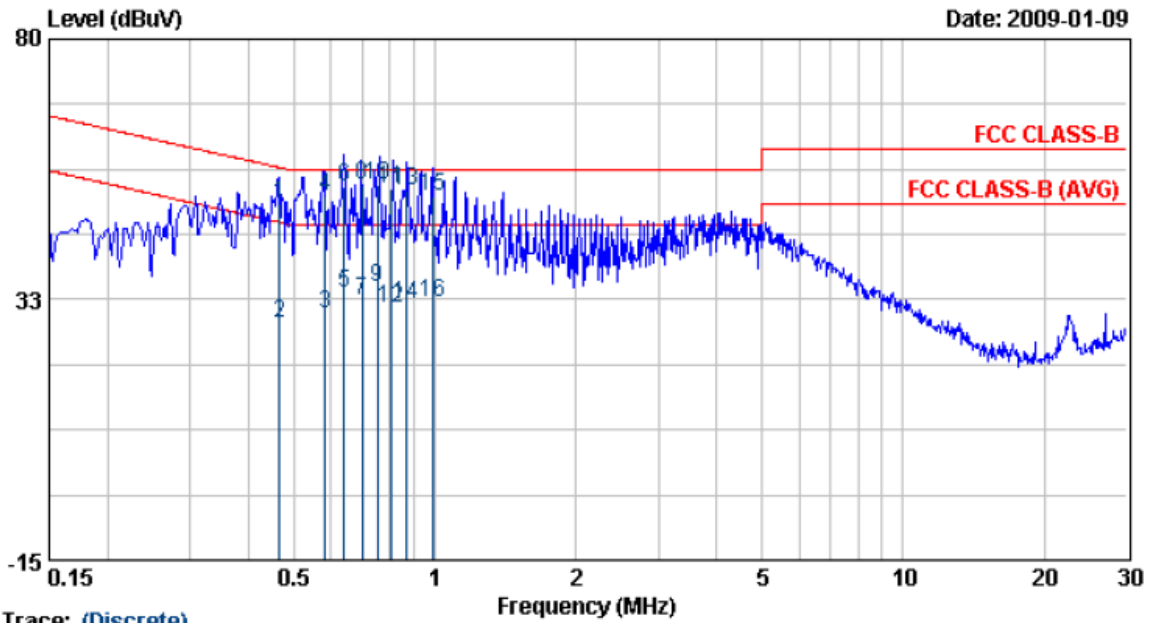
Trace: (Discrete)

Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark
	MHz	dBuV	dB	dBuV	dBuV	dBuV	
1	0.38	43.74	0.12	43.86	58.29	-14.43	QP
2	0.38	33.14	0.12	33.26	48.29	-15.03	AVERAGE
3	0.52	30.20	0.13	30.33	46.00	-15.67	AVERAGE
4	0.52	48.69	0.13	48.82	56.00	-7.18	QP
5	0.64	32.29	0.14	32.43	46.00	-13.57	AVERAGE
6	0.64	50.89	0.14	51.03	56.00	-4.97	QP
7	0.69	51.44	0.14	51.58	56.00	-4.42	QP
8	0.69	31.86	0.14	32.01	46.00	-13.99	AVERAGE
9	0.81	28.75	0.15	28.90	46.00	-17.10	AVERAGE
10	0.81	50.86	0.15	51.01	56.00	-4.99	QP
11	0.93	27.66	0.16	27.82	46.00	-18.18	AVERAGE
12	0.93	49.47	0.16	49.63	56.00	-6.37	QP

- Remarks:
- Level = Read Level + Factor
 - Factor = LISN(ISN) Factor + Cable Loss
 - All emission below 1GHz at 802.11b/g mode are all the same,so the 802.11g mode chosen as representative in final test.
 - According to technical experiences,all spurious emission of 802.11g mode at channel 1,6,11 are almost the same below 1GHz,so that the channel 1 was chosen as representative in final test.
 - The data is worse case.



Power	: AC 120V	Pol/Phase	: NEUTRAL
Test Mode 1	: 802.11g CH1	Temperature	: 23 °C
Memo	: Adapter: MT12-Y120100-A1	Humidity	: 51 %



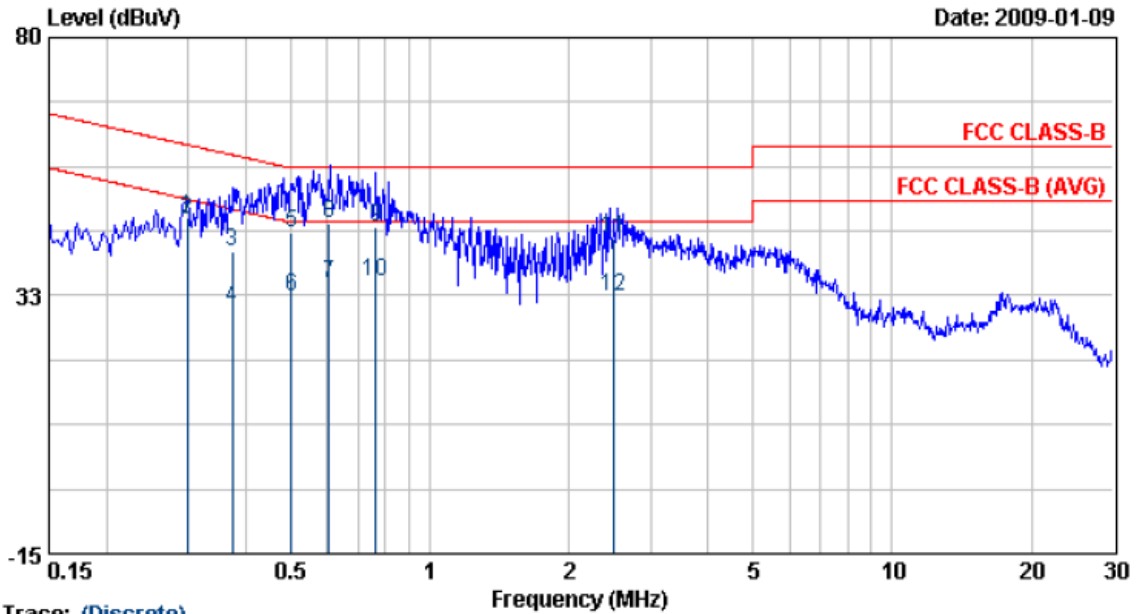
Trace: (Discrete)

Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark
	MHz	dBuV	dB	dBuV	dBuV	dBuV	
1	0.47	49.76	0.15	49.92	56.60	-6.68	QP
2	0.47	28.05	0.15	28.20	46.60	-18.40	AVERAGE
3	0.58	29.83	0.16	29.99	46.00	-16.01	AVERAGE
4	0.58	51.21	0.16	51.37	56.00	-4.63	QP
5	0.64	33.49	0.17	33.65	46.00	-12.35	AVERAGE
6	0.64	52.83	0.17	53.00	56.00	-3.00	QP
7	0.70	32.32	0.17	32.48	46.00	-13.52	AVERAGE
8	0.70	53.32	0.17	53.48	56.00	-2.52	QP
9	0.76	34.65	0.17	34.82	46.00	-11.18	AVERAGE
10	0.76	53.31	0.17	53.48	56.00	-2.52	QP
11	0.81	52.68	0.17	52.85	56.00	-3.15	QP
12	0.81	30.86	0.17	31.04	46.00	-14.96	AVERAGE
13	0.87	52.34	0.18	52.51	56.00	-3.49	QP
14	0.87	31.47	0.18	31.65	46.00	-14.35	AVERAGE
15	0.99	51.05	0.18	51.22	56.00	-4.78	QP
16	0.99	31.82	0.18	32.00	46.00	-14.00	AVERAGE

- Remarks:
1. Level = Read Level + Factor
 2. Factor = LISN(ISN) Factor + Cable Loss
 3. All emission below 1GHz at 802.11b/g mode are all the same,so the 802.11g mode chosen as representative in final test.
 4. According to technical experiences,all spurious emission of 802.11g mode at channel 1,6,11 are almost the same below 1GHz,so that the channel 1 was chosen as representative in final test.
 5. The data is worse case.



Power	: AC 120V	Pol/Phase	: LINE
Test Mode 3	: 802.11n HT20 CH1	Temperature	: 23 °C
Memo	: Adapter: MT12-Y120100-A1	Humidity	: 51 %



Trace: (Discrete)

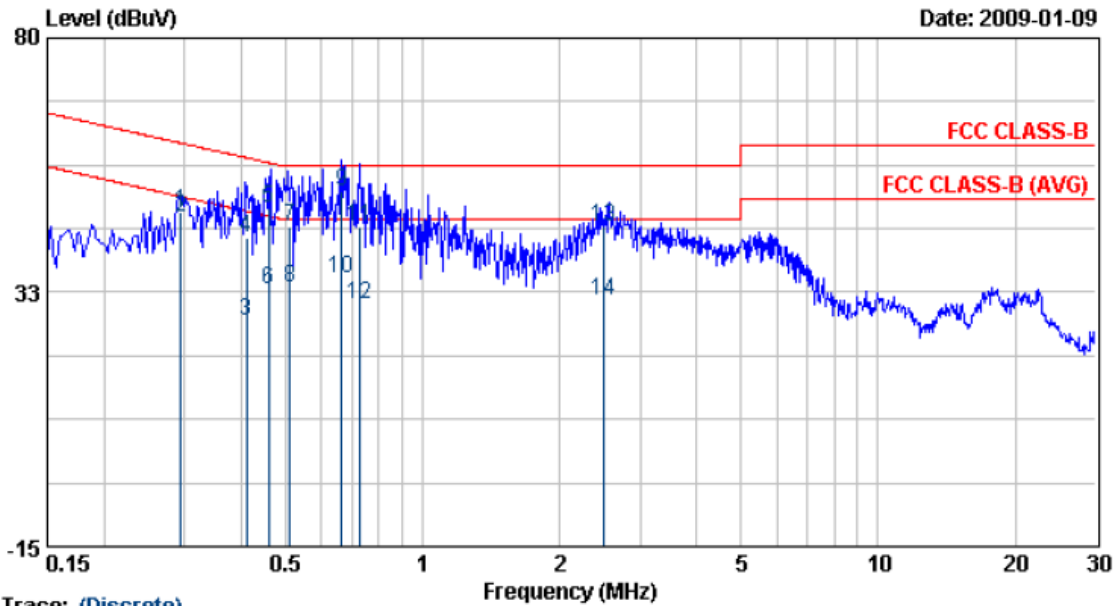
Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark
	MHz	dBuV	dB	dBuV	dBuV	dBuV	
1	0.30	46.79	0.12	46.91	60.28	-13.37	QP
2	0.30	46.30	0.12	46.42	50.28	-3.86	AVERAGE
3	0.37	40.36	0.12	40.48	58.42	-17.94	QP
4	0.37	30.21	0.12	30.33	48.42	-18.09	AVERAGE
5	0.50	43.79	0.13	43.92	56.00	-12.08	QP
6	0.50	32.15	0.13	32.28	46.00	-13.72	AVERAGE
7	0.61	34.69	0.14	34.83	46.00	-11.17	AVERAGE
8	0.61	45.62	0.14	45.76	56.00	-10.24	QP
9	0.77	44.97	0.15	45.12	56.00	-10.88	QP
10	0.77	34.83	0.15	34.98	46.00	-11.02	AVERAGE
11	2.51	42.65	0.26	42.91	56.00	-13.09	QP
12	2.51	31.96	0.26	32.22	46.00	-13.78	AVERAGE

Remarks:

1. Level = Read Level + Factor
2. Factor = LISN(ISN) Factor + Cable Loss
3. According to technical experiences, all spurious emission of 802.11MIMO mode at channel 1,6,11 are almost the same below 1GHz, so that the channel 1 was chosen as representative in final test.
4. The data is worse case.



Power	: AC 120V	Pol/Phase	: NEUTRAL
Test Mode 3	: 802.11n HT20 CH1	Temperature	: 23 °C
Memo	: Adapter: MT12-Y120100-A1	Humidity	: 51 %



Trace: (Discrete)

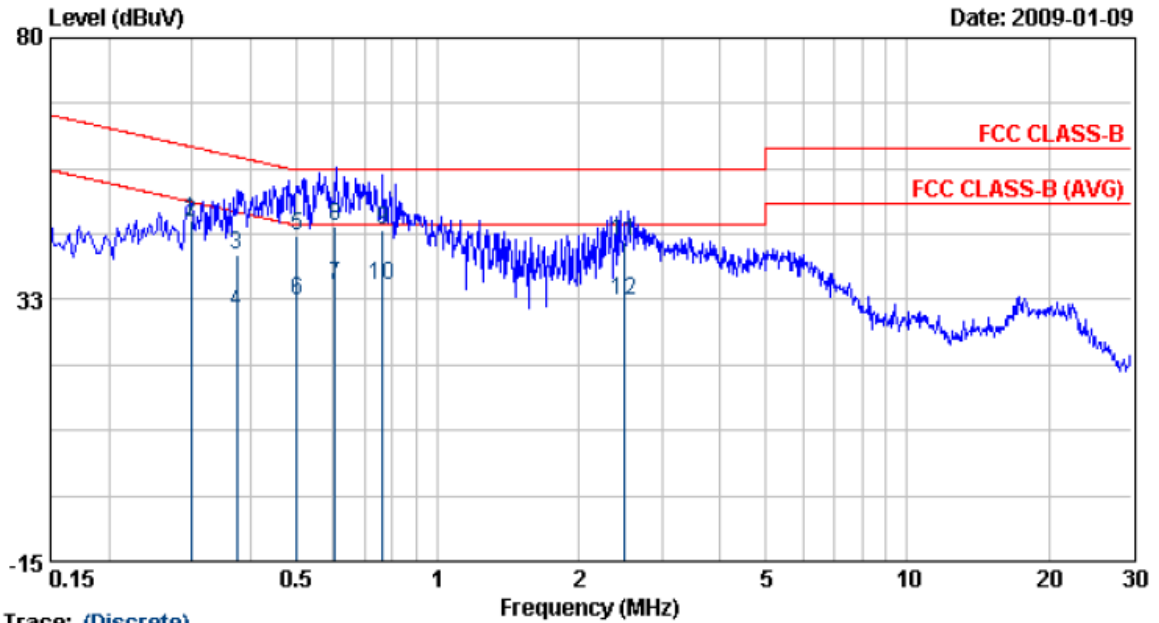
Item	Freq MHz	Read Value dBuV	Factor dB	Result dBuV	Limit dBuV	Margin dBuV	Remark
1	0.29	47.40	0.14	47.54	60.40	-12.85	QP
2	0.29	46.22	0.14	46.36	50.40	-4.04	AVERAGE
3	0.41	27.00	0.15	27.15	47.65	-20.50	AVERAGE
4	0.41	42.46	0.15	42.62	57.65	-15.04	QP
5	0.46	48.02	0.15	48.18	56.70	-8.53	QP
6	0.46	32.74	0.15	32.89	46.70	-13.81	AVERAGE
7	0.51	44.64	0.16	44.79	56.00	-11.21	QP
8	0.51	33.14	0.16	33.30	46.00	-12.70	AVERAGE
9	0.67	51.29	0.17	51.46	56.00	-4.54	QP
10	0.67	34.82	0.17	34.99	46.00	-11.01	AVERAGE
11	0.73	44.71	0.17	44.88	56.00	-11.12	QP
12	0.73	30.05	0.17	30.22	46.00	-15.78	AVERAGE
13	2.50	44.55	0.25	44.80	56.00	-11.20	QP
14	2.50	30.66	0.25	30.91	46.00	-15.09	AVERAGE

Remarks:

1. Level = Read Level + Factor
2. Factor = LISN(ISN) Factor + Cable Loss
3. According to technical experiences, all spurious emission of 802.11MIMO mode at channel 1,6,11 are almost the same below 1GHz, so that the channel 1 was chosen as representative in final test.
4. The data is worse case.



Power	: AC 120V	Pol/Phase	: LINE
Test Mode 4	: 802.11n HT40 CH3	Temperature	: 23 °C
Memo	: Adapter: MT12-Y120100-A1	Humidity	: 51 %

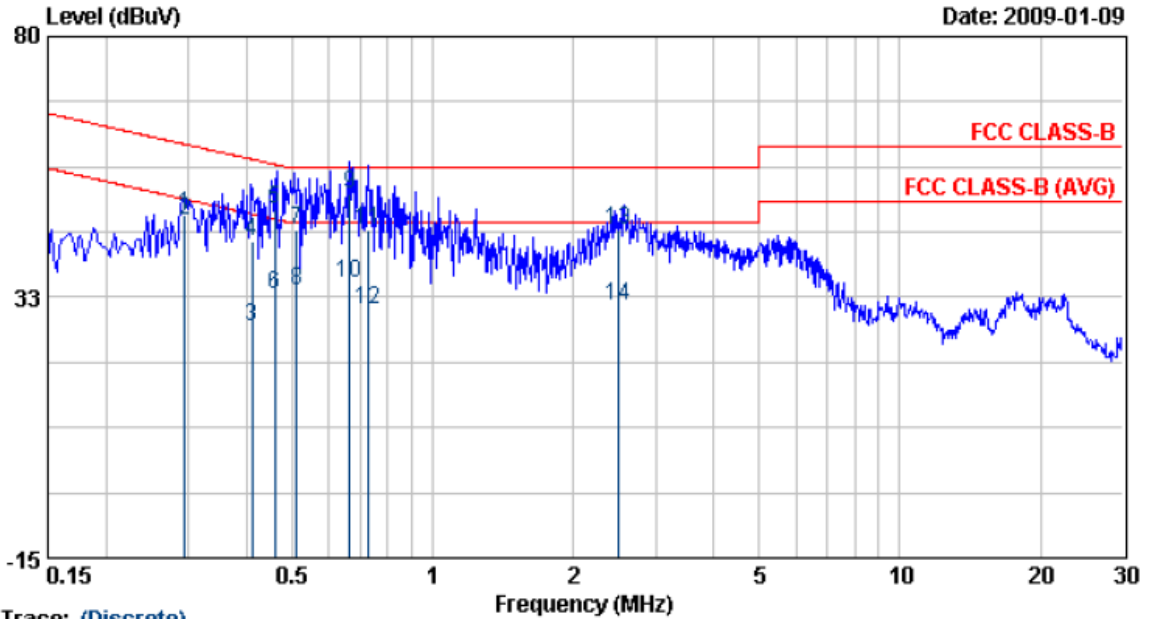


Remarks:

1. Level = Read Level + Factor
2. Factor = LISN(ISN) Factor + Cable Loss
3. According to technical experiences, all spurious emission of 802.11MIMO mode at channel 3,6,9 are almost the same below 1GHz, so that the channel 3 was chosen as representative in final test.
4. The data is worse case.



Power	: AC 120V	Pol/Phase	: NEUTRAL
Test Mode 4	: 802.11n HT40 CH3	Temperature	: 23 °C
Memo	: Adapter: MT12-Y120100-A1	Humidity	: 51 %



Trace: (Discrete)

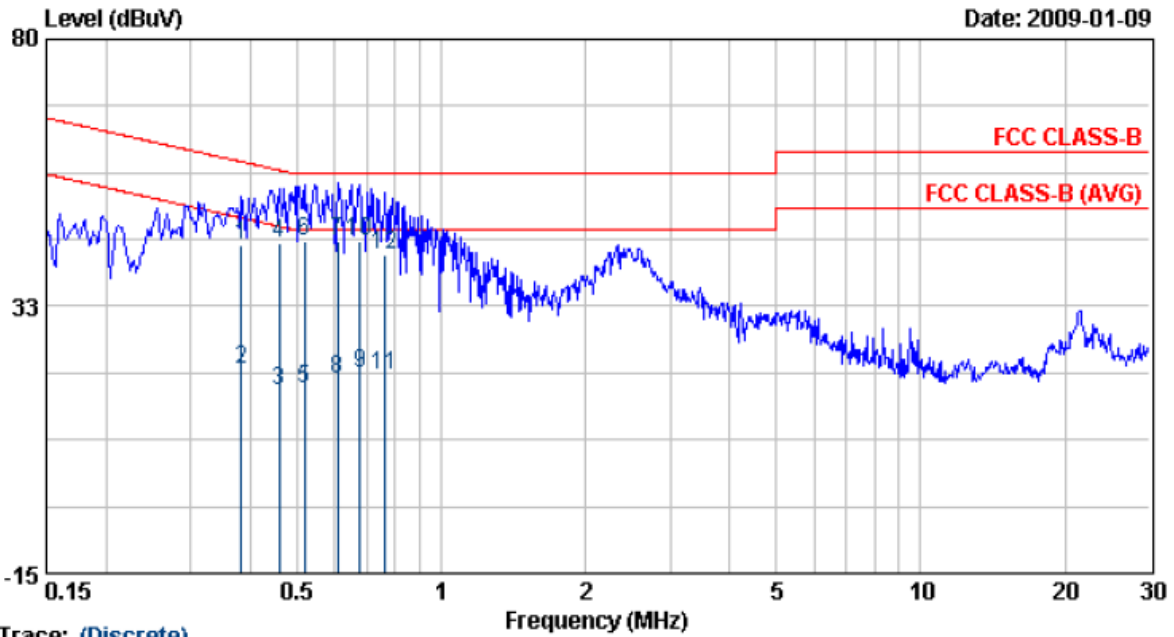
Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark
	MHz	dBuV	dB	dBuV	dBuV	dBuV	
1	0.29	47.44	0.14	47.58	60.40	-12.82	QP
2	0.29	46.25	0.14	46.39	50.40	-4.00	AVERAGE
3	0.41	26.99	0.15	27.14	47.65	-20.52	AVERAGE
4	0.41	42.45	0.15	42.60	57.65	-15.05	QP
5	0.46	48.53	0.15	48.68	56.70	-8.02	QP
6	0.46	32.71	0.15	32.86	46.70	-13.84	AVERAGE
7	0.51	44.62	0.16	44.78	56.00	-11.22	QP
8	0.51	33.65	0.16	33.81	46.00	-12.19	AVERAGE
9	0.67	51.20	0.17	51.37	56.00	-4.63	QP
10	0.67	34.84	0.17	35.00	46.00	-11.00	AVERAGE
11	0.73	44.75	0.17	44.92	56.00	-11.08	QP
12	0.73	30.03	0.17	30.20	46.00	-15.80	AVERAGE
13	2.50	44.51	0.25	44.76	56.00	-11.24	QP
14	2.50	30.56	0.25	30.81	46.00	-15.19	AVERAGE

Remarks:

1. Level = Read Level + Factor
2. Factor = LISN(ISN) Factor + Cable Loss
3. According to technical experiences, all spurious emission of 802.11MIMO mode at channel 3,6,9 are almost the same below 1GHz, so that the channel 3 was chosen as representative in final test.
4. The data is worse case.



Power	: AC 120V	Pol/Phase	: LINE
Test Mode 5	: 802.11g CH1	Temperature	: 23 °C
Memo	: Adapter: T012LF1209	Humidity	: 51 %



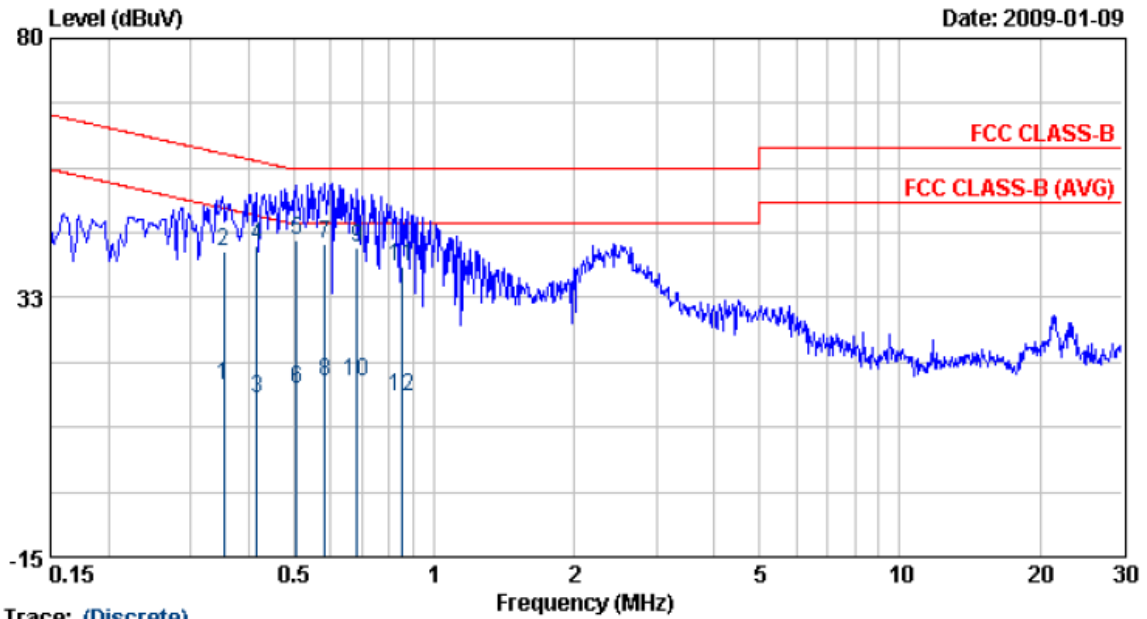
Trace: (Discrete)

Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark
	MHz	dBuV	dB	dBuV	dBuV	dBuV	
1	0.38	43.39	0.12	43.51	58.22	-14.71	QP
2	0.38	21.31	0.12	21.43	48.22	-26.78	AVERAGE
3	0.46	17.39	0.13	17.52	46.73	-29.21	AVERAGE
4	0.46	43.50	0.13	43.62	56.73	-13.10	QP
5	0.52	17.79	0.13	17.92	46.00	-28.08	AVERAGE
6	0.52	44.07	0.13	44.20	56.00	-11.80	QP
7	0.61	43.81	0.14	43.95	56.00	-12.05	QP
8	0.61	19.49	0.14	19.63	46.00	-26.37	AVERAGE
9	0.68	20.50	0.14	20.64	46.00	-25.36	AVERAGE
10	0.68	43.99	0.14	44.13	56.00	-11.87	QP
11	0.76	20.06	0.15	20.20	46.00	-25.80	AVERAGE
12	0.76	41.46	0.15	41.61	56.00	-14.39	QP

- Remarks:
1. Level = Read Level + Factor
 2. Factor = LISN(ISN) Factor + Cable Loss
 3. All emission below 1GHz at 802.11b/g mode are all the same,so the 802.11g mode chosen as representative in final test.
 4. According to technical experiences,all spurious emission of 802.11g mode at channel 1,6,11 are almost the same below 1GHz,so that the channel 1 was chosen as representative in final test.
 5. The data is worse case.



Power	: AC 120V	Pol/Phase	: NEUTRAL
Test Mode 5	: 802.11g CH1	Temperature	: 23 °C
Memo	: Adapter: T012LF1209	Humidity	: 51 %



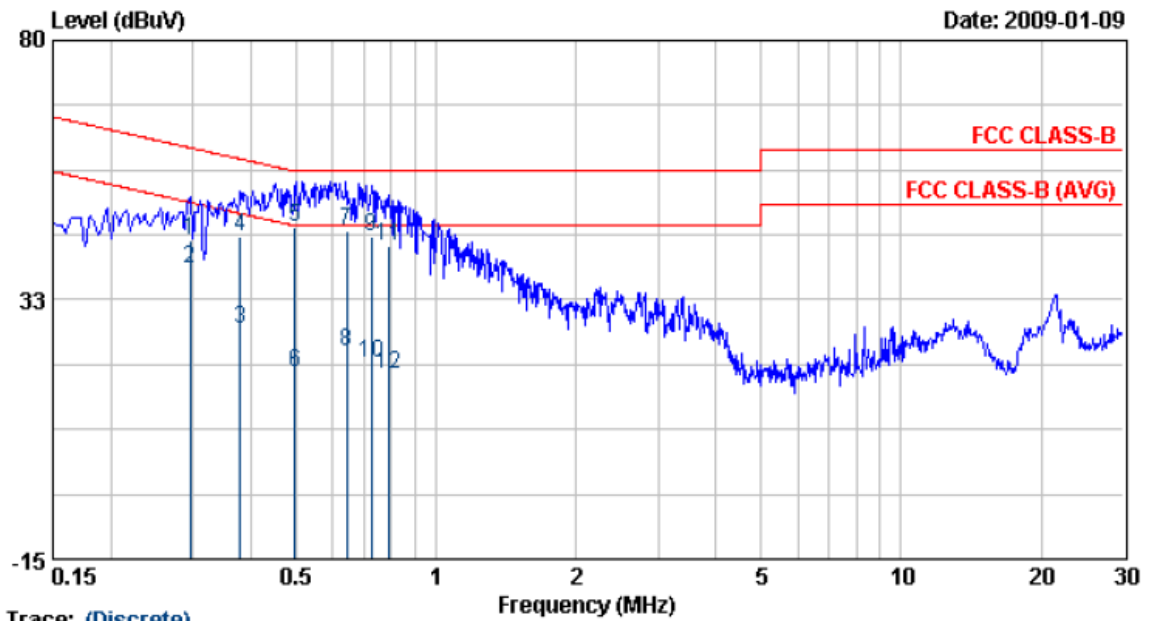
Trace: (Discrete)

Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark
	MHz	dBuV	dB	dBuV	dBuV	dBuV	
1	0.35	16.21	0.15	16.35	48.88	-32.53	AVERAGE
2	0.35	40.95	0.15	41.09	58.88	-17.79	QP
3	0.42	14.01	0.15	14.16	47.53	-33.37	AVERAGE
4	0.42	41.72	0.15	41.87	57.53	-15.65	QP
5	0.51	42.84	0.16	43.00	56.00	-13.00	QP
6	0.51	15.42	0.16	15.58	46.00	-30.42	AVERAGE
7	0.58	42.14	0.16	42.30	56.00	-13.70	QP
8	0.58	17.03	0.16	17.19	46.00	-28.81	AVERAGE
9	0.68	41.65	0.17	41.82	56.00	-14.18	QP
10	0.68	17.09	0.17	17.26	46.00	-28.74	AVERAGE
11	0.85	37.88	0.17	38.06	56.00	-17.94	QP
12	0.85	14.05	0.17	14.22	46.00	-31.78	AVERAGE

- Remarks:
1. Level = Read Level + Factor
 2. Factor = LISN(ISN) Factor + Cable Loss
 3. All emission below 1GHz at 802.11g mode are all the same,so the 802.11g mode chosen as representative in final test.
 4. According to technical experiences,all spurious emission of 802.11g mode at channel 1,6,11 are almost the same below 1GHz,so that the channel 1 was chosen as representative in final test.
 5. The data is worse case.



Power	: AC 120V	Pol/Phase	: LINE
Test Mode 7	: 802.11n HT20 CH1	Temperature	: 24 °C
Memo	: Adapter: T012LF1209	Humidity	: 52 %



Trace: (Discrete)

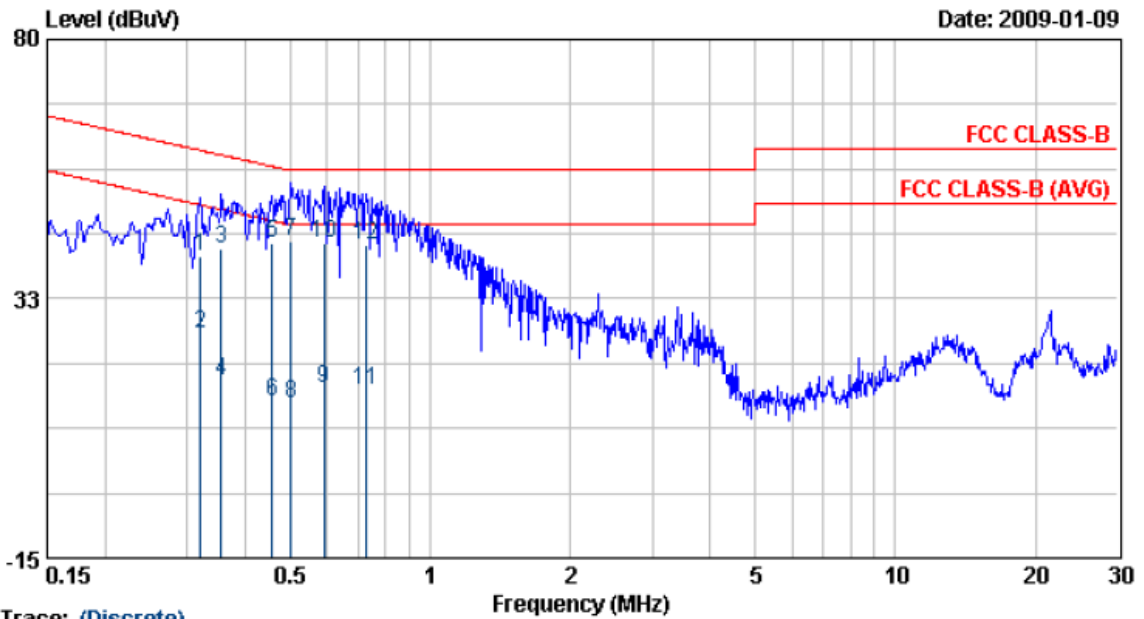
Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark
	MHz	dBuV	dB	dBuV	dBuV	dBuV	
1	0.30	43.27	0.12	43.39	60.37	-16.98	QP
2	0.30	38.05	0.12	38.17	50.37	-12.20	AVERAGE
3	0.38	27.12	0.12	27.24	48.30	-21.06	AVERAGE
4	0.38	44.00	0.12	44.12	58.30	-14.18	QP
5	0.50	45.67	0.13	45.80	56.04	-10.24	QP
6	0.50	19.23	0.13	19.36	46.04	-26.68	AVERAGE
7	0.64	45.04	0.14	45.18	56.00	-10.82	QP
8	0.64	22.91	0.14	23.05	46.00	-22.95	AVERAGE
9	0.73	44.08	0.15	44.23	56.00	-11.77	QP
10	0.73	20.73	0.15	20.88	46.00	-25.12	AVERAGE
11	0.79	42.34	0.15	42.49	56.00	-13.51	QP
12	0.79	18.72	0.15	18.87	46.00	-27.13	AVERAGE

Remarks:

1. Level = Read Level + Factor
2. Factor = LISN(ISN) Factor + Cable Loss
3. According to technical experiences, all spurious emission of 802.11MIMO mode at channel 1,6,11 are almost the same below 1GHz, so that the channel 1 was chosen as representative in final test.
4. The data is worse case.



Power	: AC 120V	Pol/Phase	: NEUTRAL
Test Mode 7	: 802.11n HT20 CH1	Temperature	: 24 °C
Memo	: Adapter: T012LF1209	Humidity	: 52 %



Trace: (Discrete)

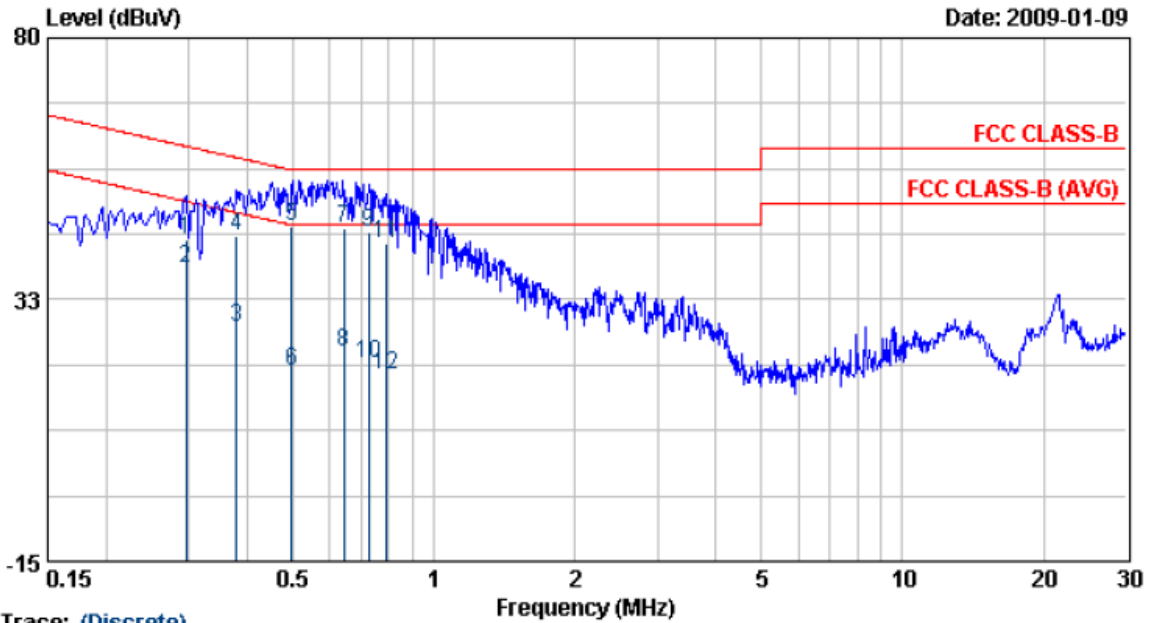
Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark
	MHz	dBuV	dB	dBuV	dBuV	dBuV	
1	0.32	40.19	0.14	40.34	59.71	-19.37	QP
2	0.32	26.00	0.14	26.14	49.71	-23.56	AVERAGE
3	0.36	41.35	0.15	41.49	58.83	-17.33	QP
4	0.36	17.26	0.15	17.41	48.83	-31.42	AVERAGE
5	0.46	42.44	0.15	42.60	56.76	-14.16	QP
6	0.46	13.45	0.15	13.61	46.76	-33.15	AVERAGE
7	0.50	42.82	0.16	42.98	56.00	-13.02	QP
8	0.50	13.21	0.16	13.36	46.00	-32.64	AVERAGE
9	0.59	15.79	0.16	15.95	46.00	-30.05	AVERAGE
10	0.59	42.60	0.16	42.76	56.00	-13.24	QP
11	0.73	15.74	0.17	15.91	46.00	-30.09	AVERAGE
12	0.73	42.07	0.17	42.24	56.00	-13.76	QP

Remarks:

1. Level = Read Level + Factor
2. Factor = LISN(ISN) Factor + Cable Loss
3. According to technical experiences, all spurious emission of 802.11MIMO mode at channel 1,6,11 are almost the same below 1GHz, so that the channel 1 was chosen as representative in final test.
4. The data is worse case.



Power	: AC 120V	Pol/Phase	: LINE
Test Mode 8	: 802.11n HT40 CH3	Temperature	: 23 °C
Memo	: Adapter: T012LF1209	Humidity	: 51 %



Trace: (Discrete)

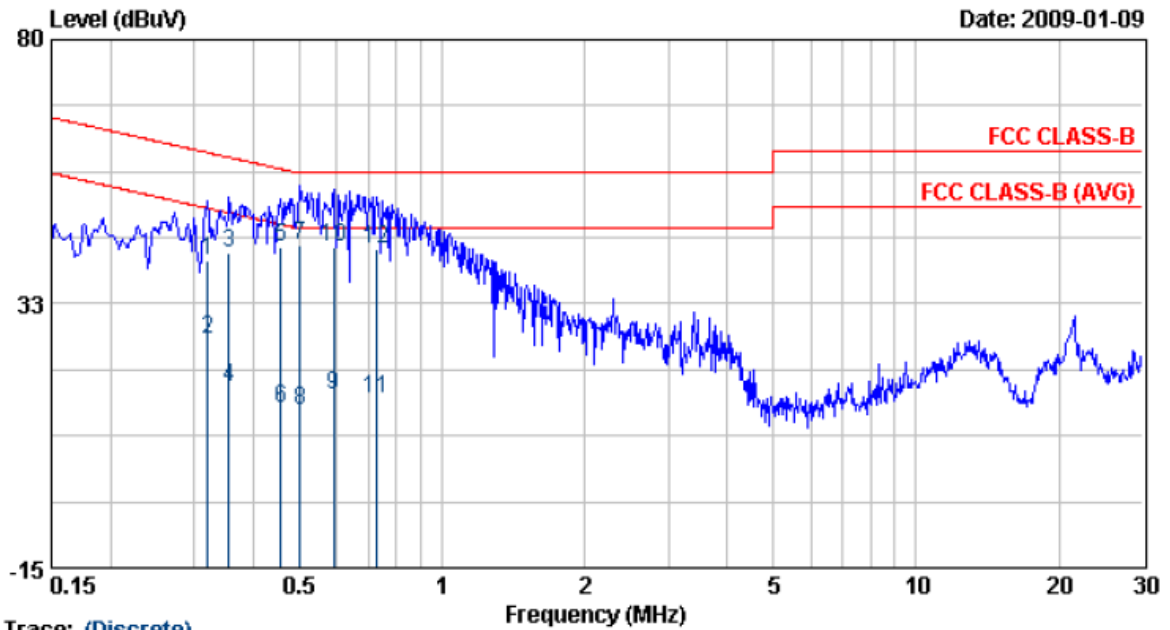
Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark
	MHz	dBuV	dB	dBuV	dBuV	dBuV	
1	0.30	43.21	0.12	43.33	60.37	-17.04	QP
2	0.30	38.01	0.12	38.13	50.37	-12.24	AVERAGE
3	0.38	27.22	0.12	27.34	48.30	-20.96	AVERAGE
4	0.38	44.11	0.12	44.23	58.30	-14.07	QP
5	0.50	45.61	0.13	45.74	56.04	-10.30	QP
6	0.50	19.30	0.13	19.43	46.04	-26.61	AVERAGE
7	0.64	45.38	0.14	45.52	56.00	-10.48	QP
8	0.64	22.98	0.14	23.12	46.00	-22.88	AVERAGE
9	0.73	44.79	0.15	44.94	56.00	-11.06	QP
10	0.73	20.71	0.15	20.85	46.00	-25.15	AVERAGE
11	0.79	42.41	0.15	42.56	56.00	-13.44	QP
12	0.79	18.79	0.15	18.94	46.00	-27.06	AVERAGE

Remarks:

1. Level = Read Level + Factor
2. Factor = LISN(ISN) Factor + Cable Loss
3. According to technical experiences, all spurious emission of 802.11MIMO mode at channel 3,6,9 are almost the same below 1GHz, so that the channel 3 was chosen as representative in final test.
4. The data is worse case.



Power	: AC 120V	Pol/Phase	: NEUTRAL
Test Mode 8	: 802.11n HT40 CH3	Temperature	: 23 °C
Memo	: Adapter: T012LF1209	Humidity	: 51 %



Trace: (Discrete)

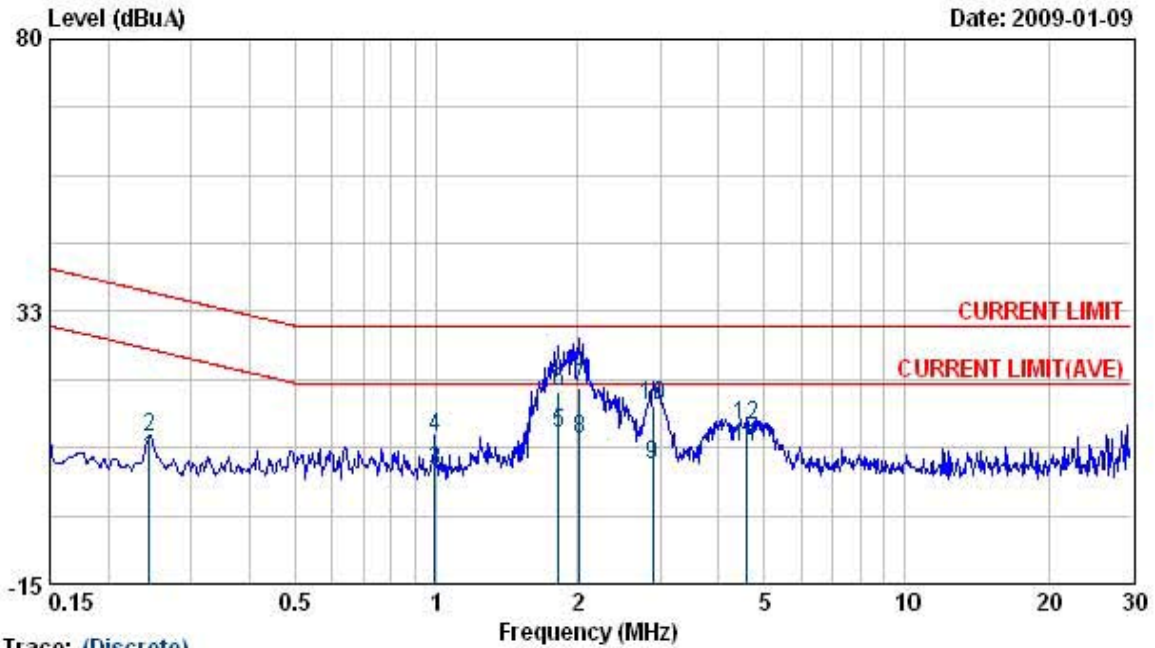
Item	Freq MHz	Read Value dBuV	Factor dB	Result dBuV	Limit dBuV	Margin dBuV	Remark
1	0.32	40.15	0.14	40.29	59.71	-19.42	QP
2	0.32	26.00	0.14	26.15	49.71	-23.56	AVERAGE
3	0.36	41.36	0.15	41.51	58.83	-17.32	QP
4	0.36	17.22	0.15	17.36	48.83	-31.46	AVERAGE
5	0.46	42.41	0.15	42.56	56.76	-14.19	QP
6	0.46	13.44	0.15	13.60	46.76	-33.16	AVERAGE
7	0.50	42.90	0.16	43.05	56.00	-12.95	QP
8	0.50	13.28	0.16	13.43	46.00	-32.57	AVERAGE
9	0.59	15.90	0.16	16.06	46.00	-29.94	AVERAGE
10	0.59	42.57	0.16	42.73	56.00	-13.27	QP
11	0.73	15.38	0.17	15.55	46.00	-30.45	AVERAGE
12	0.73	42.09	0.17	42.26	56.00	-13.74	QP

Remarks:

1. Level = Read Level + Factor
2. Factor = LISN(ISN) Factor + Cable Loss
3. According to technical experiences, all spurious emission of 802.11MIMO mode at channel 3,6,9 are almost the same below 1GHz, so that the channel 3 was chosen as representative in final test.
4. The data is worse case.



Power	: From POE	Temperature	: 23 °C
Test Mode 9	: 802.11g CH1	Humidity	: 51 %
Memo	:		



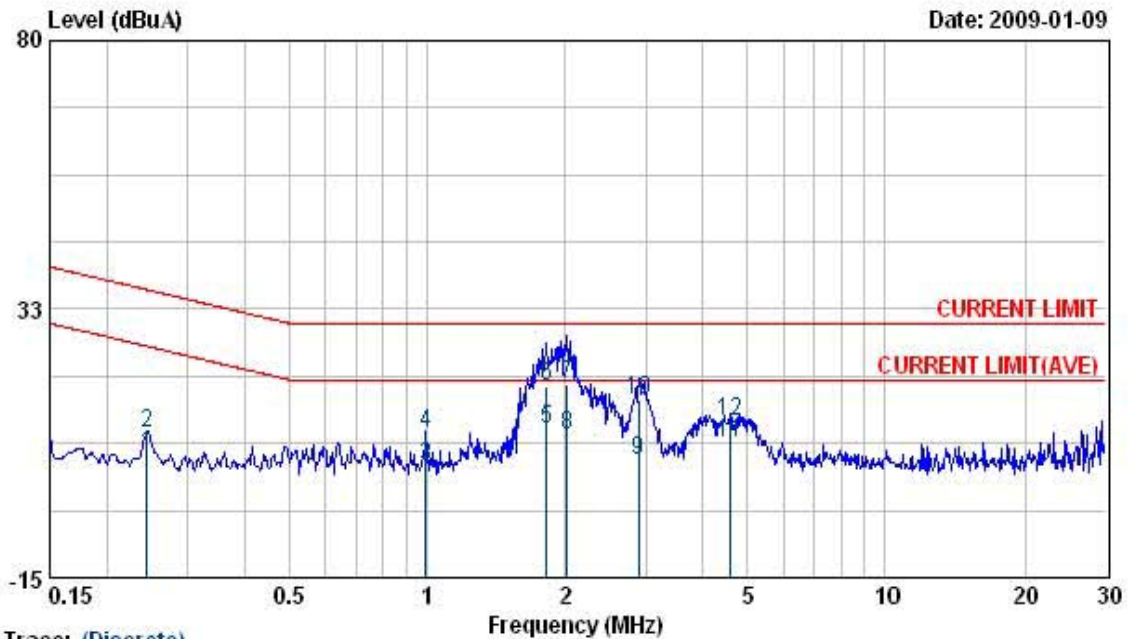
Trace: (Discrete)

Item	Freq MHz	Read Value dBuA	Factor dB	Result dBuA	Limit dBuA	Margin dBuA	Remark
1	0.24	6.34	0.28	6.62	25.95	-19.33	AVERAGE
2	0.24	10.20	0.28	10.48	35.95	-25.47	QP
3	0.99	4.52	0.32	4.84	20.00	-15.16	AVERAGE
4	0.99	10.14	0.32	10.46	30.00	-19.54	QP
5	1.82	11.00	0.32	11.32	20.00	-8.68	AVERAGE
6	1.82	18.17	0.32	18.49	30.00	-11.51	QP
7	2.02	18.90	0.32	19.22	30.00	-10.78	QP
8	2.02	9.76	0.32	10.08	20.00	-9.92	AVERAGE
9	2.90	5.38	0.32	5.70	20.00	-14.30	AVERAGE
10	2.90	15.94	0.32	16.26	30.00	-13.74	QP
11	4.57	8.45	0.33	8.78	20.00	-11.22	AVERAGE
12	4.57	12.30	0.33	12.63	30.00	-17.37	QP

Remarks: 1. Result = Read Value + Factor
 2. Factor = LISN(ISN) Factor + Cable Loss



Power	: From POE	Temperature	: 23 °C
Test Mode 11	: 802.11n HT20 CH1	Humidity	: 51 %
Memo	:		



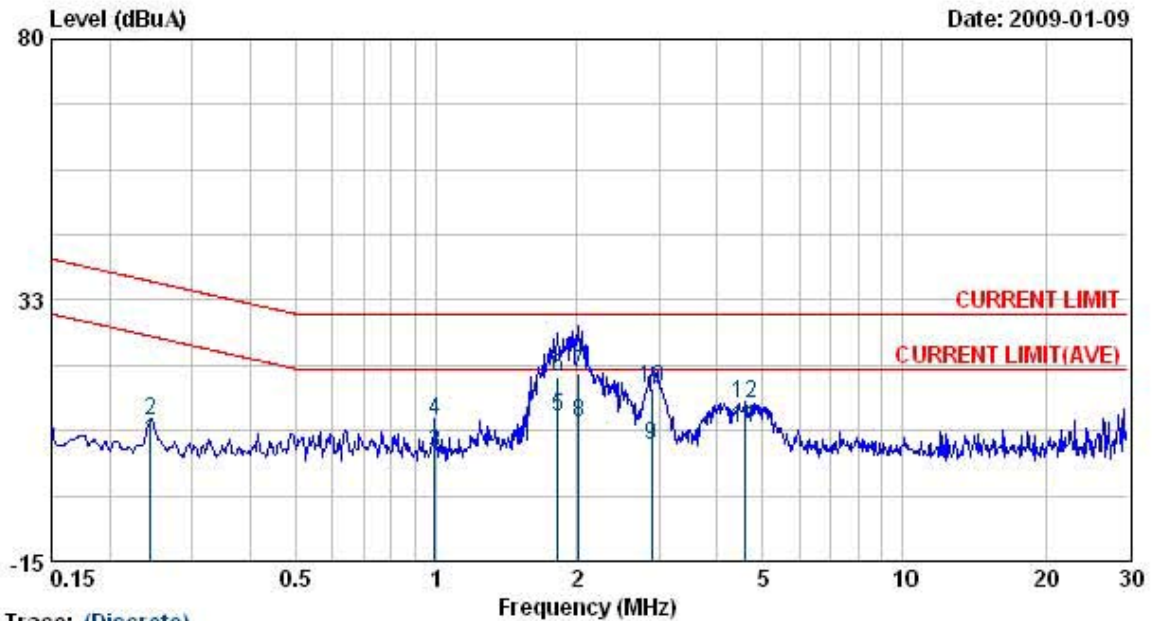
Trace: (Discrete)

Item	Freq MHz	Read Value dBuA	Factor dB	Result dBuA	Limit dBuA	Margin dBuA	Remark
1	0.24	6.39	0.28	6.67	25.95	-19.28	AVERAGE
2	0.24	10.22	0.28	10.50	35.95	-25.45	QP
3	0.99	4.52	0.32	4.84	20.00	-15.16	AVERAGE
4	0.99	10.36	0.32	10.68	30.00	-19.32	QP
5	1.82	10.99	0.32	11.31	20.00	-8.69	AVERAGE
6	1.82	18.70	0.32	19.02	30.00	-10.98	QP
7	2.02	18.92	0.32	19.24	30.00	-10.76	QP
8	2.02	9.78	0.32	10.10	20.00	-9.90	AVERAGE
9	2.90	5.36	0.32	5.69	20.00	-14.31	AVERAGE
10	2.90	15.98	0.32	16.30	30.00	-13.70	QP
11	4.57	8.50	0.33	8.83	20.00	-11.17	AVERAGE
12	4.57	12.26	0.33	12.59	30.00	-17.41	QP

Remarks: 1. Result = Read Value + Factor
 2. Factor = LISN(ISN) Factor + Cable Loss



Power	: From POE	Temperature	: 23 °C
Test Mode 12	: 802.11n HT40 CH3	Humidity	: 51 %
Memo	:		



Trace: (Discrete)

Item	Freq MHz	Read Value dBuA	Factor dB	Result dBuA	Limit dBuA	Margin dBuA	Remark
1	0.24	6.54	0.28	6.82	25.95	-19.13	AVERAGE
2	0.24	10.25	0.28	10.53	35.95	-25.42	QP
3	0.99	4.32	0.32	4.64	20.00	-15.36	AVERAGE
4	0.99	10.24	0.32	10.56	30.00	-19.44	QP
5	1.82	10.80	0.32	11.12	20.00	-8.88	AVERAGE
6	1.82	18.14	0.32	18.46	30.00	-11.54	QP
7	2.02	18.93	0.32	19.25	30.00	-10.75	QP
8	2.02	9.78	0.32	10.10	20.00	-9.90	AVERAGE
9	2.90	5.58	0.32	5.90	20.00	-14.10	AVERAGE
10	2.90	15.96	0.32	16.28	30.00	-13.72	QP
11	4.57	9.00	0.33	9.33	20.00	-10.67	AVERAGE
12	4.57	13.30	0.33	13.63	30.00	-16.37	QP

Remarks: 1. Result = Read Value + Factor
 2. Factor = LISN(ISN) Factor + Cable Loss

Test engineer: Ben